



# राजपत्र, हिमाचल प्रदेश

## (असाधारण)

हिमाचल प्रदेश राज्य शासन द्वारा प्रकाशित

शिमला, सोमवार, 24 जुलाई, 1995/2 भावण, 1917

हिमाचल प्रदेश सरकार

नगर एवं ग्राम योजना विभाग

अधिसूचना

दिनांक 15 जून, 1994

संख्या आवास-टी० सी० पी०-1-135/92.—राज्यपाल, हिमाचल ने, हिमाचल प्रदेश नगर एवं ग्राम योजना अधिनियम, 1977 (1977 का 12) की धारा-20 की उपधारा (1) और (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए निदेशक, नगर एवं ग्राम योजना हिमाचल प्रदेश द्वारा उक्त अधिनियम की धारा-19 क अधीन तैयार किए गए धर्मशाला (योजना क्षेत्र) के लिए विकास योजना का बिना किसी उपांतरण के अनुमोदन कर दिया है,

2. अतः राज्यपाल हिमाचल प्रदेश, उक्त अधिनियम की धारा-20 की उपधारा (4) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए यथा अनुमोदिन विज्ञापन योजना को प्रकाशित करते हैं और यह नोटिस देते हैं कि उक्त

विकास योजना की प्रति का निम्नलिखित कार्यालयों में, कार्यालय समय के दौरान निरीक्षण किया जा सकेगा, अर्थात् :—

1. वित्तायुक्त एवं सचिव (नगर एवं ग्राम योजना) ।
2. निदेशक, नगर एवं ग्राम योजना विभाग, शिमला ।
3. सहायक नगर योजनाकार, धर्मशाला जिला कांगड़ा ।
3. उक्त विकास योजना, इस अधिसूचना के राजपत्र हिमाचल प्रदेश में प्रकाशित किए जाने की तारीख से लागू होगी ।

आदेश द्वारा,  
हस्ताक्षरित/-  
वित्तायुक्त एवं सचिव ।

[Authoritative English Text of Government Notification No. Awas TCP-1-135/92, Dated 15-6-94 as required under clause (3) of Article 348 of the Constitution of India].

## TOWN & COUNTRY PLANNING DEPARTMENT

### NOTIFICATION

Shimla-2, the 15th June, 1994

No. Awas-TCP-1-135/92.—Whereas the Governor of Himachal Pradesh in exercise of the powers vested in him under Sub-Section (1) and Sub-Section (3) of Section 20 of the Himachal Pradesh Town and Country Planning Act, 1977 (No. 12 of 1977) has approved the Development Plan for Dharamshala Planning Area prepared by the Director, Town and country Planning Himachal Pradesh under Section-19 of the Said Act, without any modifications.

2. Now, therefore, in exercise of the powers vested in him vide 'Sub-Section (4) of Section-20 of the said Act, the Governor of Himachal Pradesh is pleased to publish the development plan as approved and gives the notice that a copy of the said development plan may be inspected at the following offices during office hours namely:—

1. Financial Commissioner-cum-Secretary (TCP) to the Government of Himachal Pradesh, Shimla-2.
2. Director, Town & Country Planning, Shimla-171001.
3. Assistant Town Planner, Dharamshala, District Kangra.

3. The said development plan shall come into operation with effect from the date of the publication of this notification in the Rajpatra, Himachal Pradesh.

By order,

Sd/-

Financial Commissioner-cum-Secretary.

नगर एवं ग्राम योजना विभाग

अधिसूचना

शिमला-171002, 5 जुलाई, 1994

संख्या. आवास-टी0सी0 पी0-1-147/92.— राज्यपाल, हिमाचल प्रदेश ने हिमाचल प्रदेश नगर एवं ग्राम योजना अधिनियम, 1977 (1977 का 12) की धारा 17 (4) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुये अन्तरिम विकास योजना बरोटीवाला का अनुमोदन कर दिया है।

अतः राज्यपाल, हिमाचल प्रदेश उक्त अधिनियम की धारा-17 (5) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुये अनुमोदित अन्तरिम विकास योजना बरोटीवाला को प्रकाशित करते हैं तथा यह नोटिस देते हैं कि उक्त अन्तरिम विकास योजना की प्रति का निम्नलिखित कार्यालयों में कार्यालय समय के दौरान निरीक्षण किया जा सकेगा, अर्थात:-

1. वित्तायुक्त एवं सचिव (नगर एवं ग्राम योजना)।
2. निदेशक नगर एवं ग्राम योजना विभाग, शिमला।
3. नगर योजनाकार परवाणु, जिला सोलन, हिमाचल प्रदेश।

उक्त अन्तरिम विकास योजना इस अधिसूचना के राजपत्र हिमाचल प्रदेश में प्रकाशित किये जाने की तारीख से लागू होगी।

आदेश द्वारा,  
हस्ताक्षरित/-  
वित्तायुक्त एवं सचिव।

[Authoritative English Text of Government Notification No. AWAS-TCP-1-147/92, Dated 5-7-94 as required under Clause (3) of Article 348 of the Constitution of India].

TOWN & COUNTRY PLANNING DEPARTMENT

NOTIFICATION

Shimla-2, the 5th July, 1995

**No.TCP-1-147/92-Vol-I.**—In exercise of the powers vested in him vide Section-17(5) of the Himachal Pradesh, Town & Country Planning Act, 1977 (Act No. 12 of 1977) the Governor, Himachal Pradesh is pleased to publish the Interim Development Plan, Barotiwalla for general information which has been approved under Section 17(4) of the aforesaid Act. It shall come into operation from the date of its publication in the Official Gazette. The Plan can be inspected at the following place during the office hours.

1. Financial Commissioner-cum-Secretary (TCP) to the Government of Himachal Pradesh, Shimla-2.
2. The Director, Town & Country Planning Department Himachal Pradesh, Shimla-1.
3. The Town & Country Planner, Divnl. Town Planning Office, Parwanoo.

By order,  
Sd/-

Financial Commissioner-cum-Secretary.

## CHAPTER-I

## INTERIM DEVELOPMENT PLAN FOR A NEW CITY BAROTIWALA

## NEED, SETTING AND CONCEPT FOR A NEW CITY

## 1.1 Need:

1.1.1. Ties of hills with plains has been an area of major concern from times immemorial. Both hills and plains being complementary to each other, their entire economy is inter-dependent. Presently, when technological and transportation revolution has taken place, entire development of Himachal Pradesh is going to be determined by the level of linkages that this hill state has got with the major cities in plains. In order to strengthen ties with plains and to cater for transportation, trade, industry and modern technological requirements of the state, there is an immense need for establishment of a new city at convenient location, adjacent to the plains.

## 1.2 Location:

1.2.1 In the outer belt of Himachal Pradesh adjacent to plains, potential areas for new city are such as Nurpur-Jassur, Una-Mehatpur, Baddi-Barotiwala and Paonta Shahib Valley. On account of fringe locations of Nurpur-Jassur and Paonta-Sahib areas, choice lies with either of the two remaining areas. As Una-Methatpur towns are adjacent to strategic Nangal township and Bhakra dam on one hand and lot of ribbon development that has already taken place in area on the other, it is not appropriate to establish a new city in this belt. In the event of central location in outer zone on potential highway near major cities of Northern India, availability of plenty of gently sloping land and panoramic view of outer Himalayas Baddi-Barotiwala is most ideal location for establishment of a new city.

1.2.2. Proposed new link road measuring only 32 kilometres through Shiwaliks from Barotiwala to Chandigarh Bus Terminal will lead to development of backward region of Himachal as well as Punjab and Haryana. It will also provide direct link from Shimla-Arki, Kullu-Manali to Ludhiana metropolis and other major cities in plains.

1.2.3. A huge investment has already been incurred by industrialists at Barotiwala and many industries have come up in the area. Development of new city in this backward region, therefore, will go a long way in fulfilling the long standing need of people.

## 1.1 Setting:

1.3.1. Besides close and better view than that from Chandigarh of the Himalayas in the east and Shiwaliks in the West, the site has all qualities that Chandigarh "the city beautiful", is bestowed with. The site spreading over down upland, is bounded by natural barriers like rivers and mountains/hills from all sides. Gently sloping terrain, clubbed with almost equispaced natural streams, provides an ample opportunity for planning and development of city, on the pattern of Chandigarh.

## 1.4 The Concept:

1.4.1. In view of potentials and propensities of Barotiwala area, a sizable city is proposed to be established there to cater for needs of transportation, trade, industry and modern technological requirements of the hill region. As the site characteristics are similar to that of Chandigarh, brief background of Planning of the city beautiful will be helpful in evolving concept for the new city.

1.4.1.1. Le corbusier, who planned the premier city of Chandigarh has viewed its master plan as a work of intuition, extension of architecture and sculpture. The planning of this new city

revolves around the principles of living work, play and circulation. Corbusier's Master Plan follows grid iron pattern. "The Sector" has been considered the basic unit of planning. He adopted principle of introvert planning. Each sector is provided with day to day facilities. Other salient features of the Chandigarh Master Plan are creation of leisure valley, mass transportation system, the unique monuments, central market, harnessing of stone and sand beds of choes, poultry, agriculture and airying on periphery and architectural, frame, advertisement and tree preservation controls.

1.4.2. In view of foregoing analysis, qualities of site, its setting/linkages, level of functions likely to come therein, modern technological requirements and socio-cultural characteristics following concept is proposed to be evolved for development of the new city.

1.4.2.1. The city is proposed to be divided into sizable sectors for the purposes of residential, commercial, industrial, facilities/services, institutional, transportation and recreational uses.

1.4.2.2. Land use and circulation being two facets of the same coin, maximum harmony of both of them is proposed to be ensured.

1.4.2.3 The roads are proposed to be planned and aligned in consonance with background of mountains on one end and shiwaliks on the other. Alignments parallel to the streams along with reclamation of land for plantation is being given due attention.

1.4.2.4. The plan proposes to evolve grid-iron-pattern in consonance with topography of the area and other functional requirements.

1.4.2.5. Existing "abadis" pose hurdle in the planning and development of new city and same can turn into slums. However, there are proposed to be retained, in view of sentiments of local people.

1.4.2.6. The new city is proposed to be a horizontal one, comprising of 3 storeyed development in general and more than that in case of city centre and institutional buildings. The air, sun and light are proposed to be given due consideration, in accordance with the seasonal variations.

1.4.2.7. Hierarchical network of roads is proposed to be evolved in view of existing/potential roads and linkages.

1.4.2.8. The city is likely to possess an overall density of 80 persons per hectare. Residential density is likely to be about 300 persons per hectare. The density is likely to vary from one zone to another in accordance with economic groups, socio-cultural and functional requirements.

1.4.2.9. Women, children, down trodden and handicapped are proposed to be given due care in the planning of city, so that they don't fall prey to evils of modern urbanisation.

1.4.2.10. The concept of neighbourhood evolved in planning of sectors of Chandigarh, is proposed to be applied while preparing detailed plans for execution of sectors in new city.

1.4.2.11. To avoid slums, it is proposed to take precautionary measures right from the stage of building of city. The labourers likely to be engaged in construction activities shall be provided with suitable shelters which can be disposed off later on. If the labourers will intend to settle, they can be afforded an opportunity.

1.4.2.12. As Burotiwala is likely to emerge a prestigious city of state, higher order facilities including high-tech. complex, health university, telecommunication complex, auditorium, state

level sports complex, inter state bus terminal, zoological and botanical parks are proposed to be developed there.

1.4.2.13. All the necessary requirements of life in terms of services. infrastructure including vehicular road, water supply, sewerage, drainage, electric supply, telephone etc. shall be made available at door step, of each dwelling so that utmost public convenience/satisfaction is ensured.

1.4.2.14. All the day to day facilities including health, education, shopping, post and telegraph, telecommunication parks and open spaces, libraries/reading rooms, recreation etc. are proposed to be provided in each cluster of houses/buildings so that quality of life is fully maintained.

1.4.2.15. Industry is proposed to be organised in accordance with wind direction, site characteristics, availability of raw material and convenience of labour. For ensuring pollution free environment remedial measures are going to be envisaged. In view of generally South East direction of winds, pollution based industries are proposed to be developed in South East of this city in future. Residential, institutional, recreational and other important uses are proposed to be located in accordance with wind direction.

1.4.2.16. Transportnagar and truck stands are proposed to be developed along rivers/streams, so that there wide beds can be used for the parking purposes.

1.4.2.17. Besides provision of parking in the premises of houses, buildings for various purposes, industries etc. adequate provision of parking lots is proposed to be made in each sector in view of potential traffic so that functionality of roads is optimised.

1.4.2.18. For optimisation of human resources, mass transit system (MTs) is proposed to be envisaged. The railway line is proposed to be extended upto the city. In view of functional status of proposed city an air strip shall have to be provided.

1.4.2.19. Leisure valleys are proposed to be developed along the streams and rivers. Wooded enclosures will be created at confluences of streams and conspicuous topographical points best suited for the purpose. Green belts are proposed to be developed all around the city. Manageable parks and open spaces shall be proposed.

1.4.2.20. Potential of area in terms of scenic beauty/panormic view of mountains and bills as well as virgin streams is proposed to be harnessed fully.

1.4.2.21. As most of the streams/choes are seasonal in nature and are prone to flash floods during Monsoon season, their channelisation along with massive plantation will be emphasized.

1.4.2.22. The decay of environment by way of soil erosion of Shiwaliks and mountains in the vicinity is proposed to be stopped forthwith, by going in for various afforestation programmes intimated by the Government.

1.4.2.23. A few pockets of rich agricultural/irrigated land including villages covered under the U.S.aid Schemes are proposed to be retained for agriculture and growing fruits and vegetables.

## CHAPTER-2

### GENERAL PROFILE

1.1 Barotiwala, situated at the foot of Kasauli-hill-range in Shiwalik hills, is a developing industrial centre deriving its name from nearby Barotiwala village. Construction of the industrial centre was taken up during 1970's for establishment of industries near to broad gauge

railhead of Kalka and Himachal Pradesh. Mineral and Industrial Development Corporation was entrusted with the work of creation and regulations of industrial plots. Situated on Pinjaur-Nalagarh & State Highway, this fast growing industrial centre at boundary of the State has an excellent location. Due to plenty of flat land it has an immense potential for future growth in establishment of large and medium scale industries as well as trade, transport and institutional establishments.

1.2. Situated at an altitude of about 460 metres in district Solan, Barotiwala has 30°—55' North latitude and 76°—50' East longitude. The Planning Area is spread in an area of 65.65 square Kilometres having present population of about 27,000. It is well connected by roads from Delhi, Chandigarh, Patiala, Ludhiana, Shimla, Dharamshala, Kullu, Manali and Sirmour district. On linking Barotiwala directly with Chandigarh and Ludhiana metropolis the proposed city is likely to grow very fast.

1.3. Located on a flat terrace, the planning area is surrounded by Dharampur range, saura-Haripur-Mandhala rang and Shiwalik hills. The area is drained by tributaries of Sirsa River like Ratta, Balad, Surajpur Choe and Nanakpur emanating from Kasauli range. These seasonal streams/choses remain dry for most of the year and are prone to flash floods during the monsoons. Terrain amidst streams and Chose is flat and gently sloping Geological formation generally is of sand, gravels and clay.

1.4. Barotiwala Planning Area has moderate and salubrious climate. Average yearly rainfall is about 143 cms. With occasionally foggy weather, Temperature varies from 8 °C to 42 °C. Most of the rainfall occurs in July-September. However, sufficient rainfall is received in winter also.

1.5. On construction of proposed direct link from Chandigarh to Barotiwala and thereby direct linkage with Ludhiana Metropolis industry, trade, commerce and transport activities are likely to grow faster in this centre. By acquiring dominance in said activities it has potentials to emerge as a state level growth centre.

## CHAPTER-3

### PLANNING AREA IN REGIONAL CONTEST

2.1. Keeping in view planning requirements and considering growth trends, Government of Himachal Pradesh vide notification No. PW (B)-15(1)-3/84, dated 3rd December, 1985, extended Himachal Pradesh, Town & Country Planning Act, 1978 (Act 12 of 1977) to Barotiwala constituting its planning area having boundaries as under:—

**NORTH:** Bounded by Ratta Nadi from Malku Majra to Jungle Bijliwala.

**EAST:** Following downwards bounded by Jungle Bijliwals Haripur and Rugibhogpur Surajpur, Dholar and Jungle Nalki upto Chandinadi.

**SOUTH:** Bounded by Chandinadi, Haryana boundary upto Baladnadi and then following Baladinadi upto the confluence of Baladnadi and Sirsanadi.

**WEST:** Bounded by Sirsanadi upto Malkumajra where Ratta nadi joins Sirsa.



The planning Area, as delineated, measures 6565 hectares approximately and covers 48 settlements in length of 15 kms and width ranging from 4 to 5 Kms. as under:—

TABLE:—1 Settlements falling within Barotiwala planning area & their Population:

Sl. No.	Name of revenue village.	Hadbast No. of revenue village	Area (in hect.)	Population in 1981	Patwar Circle
1	2	3	4	5	6
1.	Malku Majra	..	184	276	Bhud
2.	Daso Majra	..	195	88	
3.	Khol	..	186	268	
4.	Bhud	..	188	163	
5.	Malpur	..	189	259	
6.	Makhnu Majra	..	190	124	Thana
7.	Lehi	..	195	56	
8.	Koli Majra	..	191	54	
7.	Chakka	..	196	63	
10.	Karuwanan	..	197	97	
11.	Gullerwala	..	194	139	Bhatoli Kalan
12.	Dhakru Majra	..	212	57	
13.	Katha	..	211	229	
14.	Bhatoli Kalan	..	214	677	
15.	Jhar Majri	..	215	214	
16.	Kunjhal	..	216	200	Baddi
17.	Bhatoli Khurd	..	213	116	
18.	Baddi(Shital)	..	240	293	
19.	Suraj Majra/Labana	..	205	96	
20.	Suraj Majra/Gujran	..	208	67	
21.	Judi Khurd	..	209	43	Uninhabited
22.	Judi Kalan	..	210	91	
23.	Billan wali/Labana	..	207	70	
24.	Billas/Wali/Gujran	..	198	93	
25.	Sandoli	..	199	87	
26.	Kenduwala	..	200	117	Barotiwala
27.	Kalyanpur	..	201	173	
28.	Landewal	..	201	37	
29.	Chakjangi	..	203	21	
30.	Haripur Sandoli	..	206	87	
31.	Tipra	..	195	249	Mandhala
32.	Barotiwala	..	196	66	
33.	Damonwal	..	197	64	
34.	Bather	..	200	275	
35.	Burawalan	..	201	73	
36.	Balyana	..	202	41	
37.	Kotla	..	203	213	
38.	Kattiwala	..	183	18	
39.	Kalranwali	..	184	12	
40.	Sairan	..	195	27	
41.	Kaluhanda	..	186	87	
42.	Koti	..	187	221	



43. Kuran-wala	..	188	190	291
44. Kambawala	..	189	83	299
45. Mandhala	..	190	399	772
46. Sainsiwala	..	191	61	150
47. Jorapur	..	192	23	125
48. Kulhariwala	..	193	65	342
Total:	..		[ 6,565	14,428

Source:— (i) Revenue Record of Tehsil Office, Nalagarh & Kasauli,

(ii) District Census Handbook, Solan, 1981.

2.2. On account of suitable location on State Highway leading to Nalagarh and near to Broad Gauge Kalka railway station, Barotiwala has emerged as an important industrial centre. Establishment of increasingly large and medium scale industries with potential for establishment of new allied industries due to incentives given by State Government like subsidy on capital cost, subsidised supply of raw materials and disposal of finished goods etc. Barotiwala has immense potential for future growth. It is, therefore, essential that future development of the town is regulated in a planned manner. Moreover it is required to be developed as a modernised city equipped with all modern infrastructure.

2.3. According to 1981 census district Solan had 3,03,280 population which was 7.08% of total population of the State. Population of the district has increased to 3,70,320 as per 1991 Census which is 7.42% of the State. It had growth rate of 27.75% during 1971-81 decade as compared to 23.71% for the State. Growth rate of the district during 1981-91 decade had been 25.07% as compared to 19.39% of the State. Population of district is likely to grow at the rate of 1,00,000 persons per decade, part of which is bound to migrate to nearest growth centre in search of employment. Barotiwala having enormous growth potential as regional city, is likely to absorb the same.

2.4. Majority of population of the region is dependent upon primary activities like agriculture and forest as 67.86% of total work force in the district was engaged in above activities against 70.80% in the State as per 1981 census. Against 68.71% work force in primary activities in Himachal as per 1971 census, Solan district had 60.31% workers in these activities. Maize, rice and wheat are principal crops and potato, tomato, ginger and other vegetables are main cash crops.

#### CHAPTER-4

### DEMOGRAPHIC CHARACTERISTICS AND ECONOMIC BASE

3.1 Population of Planning Area constituting 49 villages increased from 11,554 in 1971 to 14,428 in 1981 and 27,000 in 1991. The growth rate of population during 1981-91 decade is about 87% which is primarily due to establishment of labour intensive industries.

3.2 In 1981, for a thousand males there were 882 females in Barotiwala Planning Area against ratio of 929 and 973 to male population of Solan district and Himachal Pradesh respectively. Similarly, sex ratio of Planning Area has been lower than that of 996% and 915% for district and Himachal Pradesh. Obvious inference which can be drawn is, that most of employees working in the Planning area reside without their families. Sex structure of population during last decades has been given as under:—

TABLE—2 sex composition of population in planning Area 1971—1991.

Year	Males	Females	Females per 1000 males
1971	6,080	5,474	900
1981	7,667	6,761	882
1986	13,640	11,360	893
1991	14,920	12,080	894

Source: (i) District Census Handbook, Solan, 1971 and 1981

(ii) District Electoral officer, Solan,

(iii) Town & Country Planning Department Socio-economic Survey, 1986.

(iv) Provisional population totals, census of India 1991, Himachal Pradesh.

3.3. Literacy in Barotiwala Planning Area as per 1981 census was 32.61% as compared to literacy rate for Solan district and Himachal Pradesh of 41.07% and 42.48% respectively. Low rate of literacy in Planning Area was due to in migration of illiterate industrial labourers. Literacy percentage during 1971—86 is as under:—

TABLE-3

## LITERACY IN BAROTIWALA PLANNING AREA 1971-1986

Year	Total population	Total literates	Literates				%age to total population
			Male	%age	Female	%age	
1971	11,554	2,328	1,875	80.54	453	19.46	20.15
1981	14,428	4,705	3,372	71.61	1,333	28.33	32.61
1986	19,500	6,856	4,759	69.41	2,097	30.59	35.16

Source: — (i) District Census Handbook, Solan, 1971 & 1981.

(ii) Town & Country Planning Department, Socio-economic Survey, 1986.

3.4. Barotiwala will realise high growth on account of probability of establishing large and medium scale industries, trade, commerce, institutional, transport, warehousing and metarial yards. In view of natural growth, rural-urban migration, better quality of life and job opportunities, decadal growth of population in Barotiwala Planning Area during 1981—90 had been enormous. However on, establishment of State/regional level functions pertaining to industry, trade, commerce, institutions, railway station, air field, health university, transport, hightech complex, sports complex, tele-communication complex, etc. it is anticipated that Barotiwala will have about 300% growth rate during 1991—2001 decade. On the basis of aforesaid growth rate, population of Barotiwala Planning Area will be 1,08,000 persons in 2001.

TABLE:—4 POPULATION PROJECTIONS FOR BAROTIWALA PLANNING AREA  
1981—2001

Year	Population
1981	14,428
1986	19,500
1991	27,000
1995	47,000
2001	1,08,000

Source:—Projections based on Census Handbook of Solan District-1981, Town & Country Planning Department Socio-economic Survey, 1986 and Provisional population totals, census of India, 1991, Himachal Pradesh.

3.5. Barotiwala is dominated by secondary sector as 66.41% workers were engaged in this activity in 1996. Out of total population of planning area, 52% were workers according to survey conducted by Town & Country Planning Department during year 1986. High percentage of workers in planning area was due to immigration of workers, who were mostly living without their families in Barotiwala Planning Area. It is anticipated that participation ratio will decrease from 52% in 1986 to 50% in 1990, 48% in 1995 and 45% in 2001.

TABLE:—5 PROJECTION OF WORK FORCE-1986—2001

Year	Total population	%age of workers to total population	Total Workers
1986	10,500	52.00	10,140
1991	27,000	50.00	13,500
1995	47,000	48.00	22,500
2001	1,00,000	45.00	45,000

Source:—Projections based on information obtained from District Electoral Officer, Solan Town & Country Planning Department Socio-economic Survey 1986 and provisional population Totals, Census of India, 1991, Himachal Pradesh.

3.6. It is envisaged that participation of workers in tertiary sector will continue to increase with growth to trade and services. The primary sector will decline with increase of urbanisation Occupational structure, as anticipated, is given below:

TABLE:—6 SECTOR-WISE PROJECTION OF WORK FORCE IN BOROTIWALA PLANNING AREA-1986—2001.

Sector	Workers in 1986	%age	Workers in 1991	%age	Workers in 1995	%age	Workers in 2001	%age
Primary	906	24.66	2970	22.00	4,520	20.00	8,100	18.00
Secondary	6,734	66.41	9045	67.00	15,142	67.00	30,150	67.00
Tertiary	2,500	8.93	1485	13.00	2,938	13.00	6,750	15.00
Total:	10,140	100.00	13,500	100.00	22,600	100.00	45,000	100.00

Source:—Projection based on Town & Country Planning Department Socio-economic Survey, 1986 and provisional population Totals, Census of India, 1991, Himachal Pradesh.

3.7. Agricultural sector has no scope of accommodating additional work force. To generate more employment opportunities, besides secondary sector, tertiary sector is also to be encouraged in consonance with enormous potential of the area. There is immense potential for establishment of large, medium and ancillary manufacturing industries, warehousing, trade and services in town.

#### CHAPTER-5

### DEVELOPMENT PATTERN AND REQUIREMENTS

4.1. Development pattern of Barotiwala Planning Area has been governed by constraints imposed by streams rivulets and seasonal chos characterised by down foot hills topography. The Planning Area is broken in many fragments like Baddi-Malku-Majra-Bilanwau upland surrounded by Balad Nadi; Ratta Nadi and Sirsa Nadi Barotiwala-Jhar-Majri upland bounded by Balad Nadi and Surajpurchoe and dissected by numerous chos in foot hill zone and Tipra-Sansiwala-Mandhala-Katiwala upland marked by Nanakpur Nadi Ramnagar Nadi and other chos. The Planning Area is marked by Dasumajra-Haripur-Madhala range in west Ramnagar river in South Haryana boundary and Sirsa river in West and Ratta river and Dharampur range in North. On construction of a bridge on Balad Nadi near Jhar-Majri on Baddi-Barotiwala road industrial areas started developing on ribbon pattern, in the absence of serviced land and other infrastructural facilities. Existing development pattern and requirement of land by the year 2001 for housing, trade and commerce, industry, community facilities and services, institutions, Government Offices, Parks, Open spaces, traffic and transportation has been discussed in the following paragraphs.

#### 4.2 Housing:

4.2.1. According to survey conducted by the Town & Country Planning Department during year 1986, it had been observed that 57% houses were in bad condition, 25% in moderate and 18% in good condition. About 38% houses had flat roofs and 62% slanting roofs. 2.6% houses were double storeyed and 97.4% single storeyed. Average family size was 5.5 persons. Population density of Planning Area was 297 persons per square Kilometre.

4.2.2. As major industries like iron forging and metalling, textile mills, home pipe casting, chemicals etc. had been allowed adjacent to residential areas, they create smoke and noise pollution.

4.2.3. It is anticipated that population of Barotiwala Planning Area will increase to 1,00,000 by 2001, out of which 1,00,000 population will be living in urbanisable area and remaining 8,000 in rural areas falling within Planning Area. On the basis of family size of 4 persons, there will be requirement of 25,000 dwelling units. It is estimated that 365 hectares of land will be required for residential areas by year 2001 accommodating 25,000 dwelling units, giving a population density of 300 persons per hectare.

#### 4.3. Trade and Commerce :

4.3.1. Present commercial areas are not functionally suited to meet demands of growing population. According to survey conducted by this department during 1987, there are only 210 shops in urbanisable area. A few shops are located at Baddi along the state Highway and Ram Shaher road. The remaining shops are located at Barotiwala along roads. Shops are coming up fast along Barotiwala Haripur and Baddi-Nalagarh roads. Wholesale market and storage and godowns facilities are required to be provided in urbanisable area.

4.3.2. Besides providing space for wholesale market and storage facilities, it is anticipated that commercial needs will grow constantly with increase in population. The proposed urbanisable

area will consist of 20 sectors. Various sectors shall have area and shops as under:—

TABLE:—7 SHOPPING REQUIREMENTS—2001

Level of shopping	Estimated population	No. of shops	(Area in hectare)
Sectoral Shopping.	5000-15000	100-110	1.10
Convenient shopping in each cluster	1000-15000	10-15	0.10

Keeping in view aforesaid standards requirement for commercial area for 20 sectors and 80 clusters works out to 24 hectares. Town level shopping centre is required to be provided 10 hectare area. Twenty hectares area will be required to be provided for wholesale market, timber yards and storage facilities. Moreover, 2 hectares area is required for hotels. Thus, total requirement of area for trade and commerce except convenient shopping will be 54 hectares including 4 hectares existing area of timber market, the site of which is required to be shifted.

#### 4.4. Industry:

4.4.1. According to survey conducted by Town & Country Planning Department in 1987 an estimated 6,734 workers were engaged in industrial units. Size of industrial plots varied from 90 Sqm. to 7.83 hectares, average being 1.11 hectares. Among 92 functioning units 26% were of metaling and steel products, 17% of paper and printing, 15% of chemical, 14% engineering goods 9% textile and fibre products, 4% flour and food products and 15% of other types. 78% industries were of non-obnoxious nature and 2 % of obnoxious type. Major industries worth mentioning are winsome Textile, vardhman Textile Spinning Mills, Deepak Spinners Ltd., Himachal Fibre Ltd., Pamwi Speciality and Tissues Paper Ltd., Jai Mata Roller Glass Company, S.R. Forging Industries, Pvt. Ltd., Chahattigarh distrilleries Indian Oil Gas Bottling Plant.

4.4.2. Among industrial workers, about 17% were skilled, 41% unskilled and 42% were other workers. 69% workers were permanent and 31% temporary. About 49% industrial workers were provided with residential accommodation. Out of total industrial workers 67% had monthly income of less than Rs. 600/-, 28% in between Rs. 600-1500 and only 5% more than Rs. 1500. 42% workers were Himachalis, whereas 58% were non Himachalis. About 86% industrial units were registered.

4.4.3. There are 33 polluting industries in Baddi-Barotiwala area. Major water polluting industries are pickling, plating, engineering drug & chemical. Most of these units have provided effluent treatment plants and working satisfactorily. Pharmaceutical units have been provided with gaseous scrubbing system. Other minor air polluting units like baby boilers, oil fired furnaces and oil fired boilers have been provided the stacks of required height. The major solid waste generation is from rice husk, fired boiler and induction furnace. The solid waste is being used for land filling within the premises by some units and others are selling the solid waste or making some by-product out of it.

4.4.4. Barotiwala Planning Area has excellent potentials for developing various kind of industries on account of its favourable location on State Highway near main rail-head of Kalka as well as probability of extension of railway line to the city. On account of its proximity to potential markets for finished goods, adequate power, availability of flat serviced land, moderate

climate and various incentives of State Government like subsidy on capital costs, subsidised supply of raw materials and disposal of finished goods Barotiwala will emerge as one of the most important industrial growth centre in the State. For anticipated industrial work force of 31,533 by 2001, on the basis of 150 square metres area per worker, 473.00 hectares of land shall be required.

#### 4.5 Facilities and Services:

4.5.1. The Urbanisable Planning Area has a 10+2 Senior Secondary, 6 Primary and 1 Craft and Tailoring School, Facilities of health centre, 1 dispensary, 1 veterinary dispensary, 1 telephone exchange, 2 sub-post Office, 1 police post, 3 banks, 1 rest house, 1 community hall, 1 in and 1 electric sub-station are also existing in urbanisable area. Facilities and services are meager in the area.

4.5.2. Area requirement for community facilities has been worked out on the basis of proposed standards given below: —

TABLE:—8 REQUIREMENT OF AREA FOR FACILITIES AND SERVICES-2001.

Sl. No.	Facility	Level/population	Future requirement	Area per unit (in hect.)	Total Area req.(in hect.)	Existing area (in hect.)	Addl. area reqd.(in hect.).
1	2	3	4	5	6	7	8
1.	Post graduate degree college.	Regional level	1	5.00	5.00	—	5.00
2.	Institute of Technology	Regional level	1	10.00	10.00	—	10.00
3.	I.T.I.	Regional level	1	1.50	1.50	—	1.50
4.	Sr.Secondary School	8000—12000	10	1.50	15.00	1.50	13.50
5.	High School	5000—6000	17	1.00	17.00	1.00	16.00
5.	Primary School	2000-2500	40	0.40	16.00	2.00	14.00
6.	Nursery School	3000	33	0.10	3.30	—	3.30
7.	Hospital	Regional level	1	3.00	3.00	—	3.00
8.	Health University	State level	1	50.00	50.00	—	50.00
9.	Primary health Centre	5000-6000	15	0.40	6.00	0.40	5.60
10.	Veterinary hospital	Regional level	1	1.00	1.00	—	1.00
11.	Dispensary	3000-4000	25	0.10	2.50	0.30	2.20
12.	Sectoral Parks	Sector level	20	0.40	8.00	—	8.00
13.	Local Parks	Cluster level	80	0.04	3.20	—	3.20
14.	Cinema	20,000	5	0.25	1.25	—	1.25
15.	Library	50,000	2	0.20	0.40	—	0.40
16.	Reading room	5000	20	0.01	0.20	—	0.20
17.	Community Hall	5000-6000	20	0.10	2.00	0.10	1.90
18.	Auditorium	Town level	1	1.00	1.00	—	1.00
19.	Club	5000-6000	17	0.04	0.68	—	0.68
20.	Swimming Pool	Town level	2	0.40	0.80	—	0.80
21.	Post & Telegraph office	One for 2 Sector.	10	0.10	1.00	—	1.00
22.	Sub-Post Office	3 in each sector	60	0.10	0.60	0.02	0.58
23.	Telephone exchange.	Town level	1	0.20	0.20	0.10	0.10

1	2	3	4	5	6	7	8
24.	Tele Communication complex.	Regional level	1	1.00	1.00	—	1.00
25.	Electric sub station	2 in each sector	40	0.10	4.00	0.10	3.90
26.	Police station	Town level	1	0.40	0.40	—	0.40
27.	Police Post.	One for 2 sector	10	0.20	2.00	0.30	1.80
28.	Fire station	Town level	1	1.00	1.00	—	1.00
29.	Petrol & diesel filling station.	1 for 2 sector	10	0.40	4.00	—	4.00
30.	Rest House	1 for 2 sector	10	0.50	5.00	0.50	4.50
31.	State sports complex including stadium golf Course & race course.	State level	1	20.00	20.00	—	20.00
32.	Labour hostel	1 for each Industrial sector.	3	0.50	1.50	—	1.50
33.	Bank	4000-5000	20	0.10	2.00	0.30	1.70

#### 4.6 Government/Semi-Government Offices and Institutions:

4.6.1. According to survey conducted during year 1986 the area had 13 offices out of which 10 were of State Government and 3 central Government Offices, 5 Offices were functioning from Government buildings, whereas, 8 from rented buildings. At present, out of 2500 tertiary workers 10% are engaged in Government Offices. As per projections for 2001, there shall be 20% (1404) employees working in Government and Semi Government Offices. On the basis of 18 square metres space requirement for each worker 2.52 hectare area shall be required for offices. Moreover, a high tech complex including electronics requires an area of 3 hectares.

#### 4.7 Traffic and Transportation:

4.7.1. Pinjaur-Baddi-Nalagarh State Highway which passes through Planning Area is acting as its life line. Other district roads connect it with Kasauli and Parwanoo.

4.7.2. At present, Planning Area has no bus stand. Besides two local bus stands each with an area of 2 hectares an inter-state Bus terminal with 10 hectares area is required to be provided. On account of potentials for industrial and market activities a transportnagar in an area of 20 hectares and two truck stands in 5 hectares are required to be provided. For increasing vehicular traffic, parking, repair and terminal facilities will have to be provided in town, Major roads of 60, 45, 30 and 24 metres width are required to be provided. Important arteries with more than 4 lanes and other internal roads with 2 or more lanes are also required to be provided in accordance with traffic load.

4.7.3. Traffic Survey was conducted by the department of Town & Country Planning on 26-5-1991. The load of traffic during 12 hours (7 A.M. to 7 P.M.) on 26-5-72 is shown in the table given below:—

TABLE:—7 TRAFFIC VOLUME ON EXIST POINTS ON MAJOR HIGHWAYS.

Sl. No.	Highway	Survey point	Traffic Volume (in passenger Car Unit-PCU).		
			Incoming	Outgoing	Total
1.	Nalagarh-Pinjore Highbway.	Ratta Barrier	863	920	1,783
2.	-do-	Baddi Chowk	1,205	1,362	2,567
4.	Pinjore-Barotiwalla Baddi.	Maranwalla Barrier	1,914	2,049	3,963
3.	Barotiwalla-Haripur	Barotiwalla Chowk	1,479	1,242	2,721
5.	Baddi-Sai	Patiala distillery	562	465	1,027



The traffic load is likely to increase manifold on connecting Barotiwala directly with Chandigarh and Ludhiana Metropolis.

4.8 Major sources of water supply are from tube wells. At present total water supply is 6.30 lakh gallons per day average per capita being 32 gallons. Additional supply can also be made from the Sirsa river. Town is being served by reservoirs which have capacity of about 7 lac gallons. On the basis of 50 gallons per capita water supply per day, 50 lakh gallons water supply shall be required to cater for needs of population and industries by year 2001.

4.9. The town has no sewerage system and same is required to be provided. Electricity supply is required to be provided for anticipated population industries transport communication and institutional requirements.

#### 4.10. Existing Landuse:

4.10.1 Existing landuse map of Barotiwala Planning Area was prepared and adopted vide Notification No. HIM/TP-PAR-DP-11454-604 dated 30-3-87. Existing landuse has been updated during year 1992. The urbanisable Planning Area can be divided into 20 sector. Sector-wise existing landuse is as under :—

TABLE:-10 EXISTING LAND USE OF UNDEVELOPABLE PLANNING AREA 1992

Sector	Residential	Commercial	Industrial	Facilities	Govt. Offices	Parks.	Traffic & Transport	Total	Agriculture & Greens	Rivers/ Nallahs	Grand Total
I.	7.50	3.00	7.70	0.25	—	—	2.00	20.45	75.30	13.25	109.00
II.	1.50	0.25	4.25	—	1.25	—	3.25	10.50	72.75	6.00	89.25
III.	4.00	—	7.00	—	—	—	2.70	13.70	63.55	12.75	90.00
IV.	3.00	—	0.75	—	—	—	2.10	5.85	70.90	1.25	78.00
V.	1.25	0.75	21.50	—	—	—	2.80	26.30	43.70	9.00	79.00
VI.	5.25	1.10	18.25	4.50	—	—	2.50	31.60	79.15	9.25	120.00
VII.	0.50	12.75	1.50	0.25	0.12	—	6.10	21.22	118.03	22.00	161.25
VIII.	1.50	—	0.75	—	—	—	2.10	4.35	84.65	10.00	99.00
IX.	1.50	0.75	—	0.25	—	0.04	2.10	4.64	73.86	10.50	109.00
X.	6.75	2.75	32.25	—	—	—	5.25	47.00	54.65	6.35	108.00
XI.	0.50	—	1.00	—	—	—	1.75	3.25	57.50	1.25	62.00
XII.	1.50	—	—	—	—	—	1.00	2.50	97.00	1.50	101.00
XIII.	1.00	0.75	34.00	—	—	—	2.50	3.25	34.75	6.00	79.00
XIV.	—	—	1.00	—	—	—	1.00	2.00	81.50	7.50	90.00
XV.	3.25	0.50	12.20	—	—	—	2.50	18.45	37.05	1.50	57.00
XVI.	4.00	0.25	6.00	0.10	—	—	3.10	13.45	89.80	6.75	110.00
XVII.	0.75	—	—	—	—	—	2.25	3.00	71.50	1.50	76.00
XVIII.	0.50	—	0.75	—	—	—	2.00	3.25	82.00	8.75	94.00
XIX.	1.25	—	1.75	—	—	—	0.50	3.50	79.25	4.25	87.00
XX.	10.10	0.25	10.75	—	—	—	3.20	24.30	64.35	1.35	90.00
West Barotiwala.	3.50	0.75	5.50	2.50	—	—	0.50	12.75	84.25	5.00	102.00
Total :	59.10	23.85	166.90	7.85	1.37	0.04	51.20	310.31	1534.49	145.70	1990.50

Source:— Town &amp; Country Planning Department Landuse-Survey, 1986-1992.

411. Additional requirement of uses within urbanisable Planning Area by year 2001 has been worked out as under:—

TABLE:—II ADDITIONAL REQUIREMENT OF URBANISABLE PLANNING AREA-2001.

Sector	Residential	Commercial	Industrial	Facilities & services	Govt. & Semi-Govt. Offices	Parks & Open spaces	Traffic & Transportation	Total
1	2	3	4	5	6	7	8	9
I.	21.50	—	42.30	3.25	0.50	5.40	13.00	85.95
II.	23.50	6.85	—	4.50	—	0.40	10.50	45.75
III.	19.00	10.10	3.00	3.50	—	0.40	16.30	52.30
IV.	26.75	1.10	—	4.50	—	0.40	13.15	45.90
V.	—	—	38.50	3.50	—	0.40	10.30	52.70
VI.	21.25	—	26.75	—	—	4.40	17.50	69.90
VII.	—	4.25	—	11.63	3.65	78.00	17.90	115.43
VIII.	—	—	—	—	—	25.40	37.90	63.30
IX.	—	0.35	—	25.05	—	15.36	22.90	63.66
X.	3.25	0.05	32.75	3.50	—	5.40	14.75	59.70
XI.	8.70	—	34.00	3.50	—	0.40	10.25	56.15
XII.	—	1.10	80.00	3.50	—	0.40	13.50	98.50
XIII.	—	0.35	21.00	3.50	—	0.40	14.50	39.75
XIV.	21.50	1.10	—	3.50	—	0.40	17.00	43.50
XV.	—	0.30	27.80	3.50	—	0.40	5.25	37.25
XVI.	48.00	0.85	—	4.40	—	0.40	19.90	73.55
XVII.	—	1.10	—	60.00	—	0.40	11.00	72.50
XVIII.	39.50	1.10	—	4.50	—	15.40	15.25	75.75
XIX.	33.75	1.10	1	4.50	—	10.40	17.75	67.50
XX.	39.90	0.85	—	4.50	—	10.40	10.05	65.70
Railway Complex.	—	0.35	—	—	—	—	71.70	72.25
Total :	305.90	30.90	306.10	154.83	4.15	174.56	380.55	1356.99

4.12. As planning Area has enormous flat land, future growth will take place in contiguous manner. urbanisable area is dissected by various streams and rivulets. However, plenty of developable land is available in the intervening portions of streams/choes for expansion of future urban area.

## CHAPTER-4

### DEVELOPMENT PROPOSALS

6.1. This development plan contemplates allocation of developable land for different uses to meet requirements for next 10 years i.e. upto year 2001 and also envisages sector-wise break up of proposed land-use structure. Various landuses have been proposed keeping in view availability of developable land in each sector, holding capacity in terms of population and other activities, existing landuse of area, development potentials, conformity of land use to its surrounding area, threshold population for facilities, locational attributes of facilities and services, site characteristics, convenient distance of work areas from residential areas, land values etc. Out of 6,565 hectares of land within planning area, 2625.50 hectares is urbanisable area. Out of this area 1667.30 hectare is proposed for residential, commercial, industrial, facilities and services, Government & Semi-Government offices, institutions, traffic and transportation Parks, and open spaces etc. whereas 323.20 hectare is proposed for other uses i.e. agriculture, natural woodlands, water bodies etc. Apart from this an area of 635 hac. has been kept for undetermined use.

#### 6.2 Allocation of landuse: .....

6.2.1. An area of 365.00 hectares has been earmarked for residential use on 20 sectors and railway complex depending upon availability of developable land. As area of convenient shopping, nursery schools/primary schools and local parks cannot be detailed out on development plan, their landuse requirements have been included in residential areas and can be shown in sectoral plan.

6.2.2. For commercial development 54.75 hectares area has been allocated. Besides existing commercial area, shopping area have been proposed in each sector according to threshold population 20 hectares land for wholesale, warehousing and timber yards has been earmarked 2.00 hectare area is proposed for hotels.

6.2.3. Keeping in view, suitability of location for industrial activity adjacent to existing industrial complexes an additional area of 306.10 hectares has been proposed.

6.2.4. Facilities and services have been allocated an area of 162.68 hectares out of which 7.85 hectares is existing area and 154.83 hectares additional area in different sectors. Regional and Town level facilities like Post Graduate Degree College, Hospital, I.T.I., University, Auditorium Cinema, Telephone exchange, Tele-communication complex, Sports complex, Stadium etc. have been proposed at Central and convenient locations. Besides educational, medical and cultural facilities, playgrounds have also been included in this use.

6.2.5. An area of 5.52 hectares has been proposed for Government and Semi-Government Offices out of which 1.37 hectare is existing area and 4.15 additional area allocated in different sectors.

5.2.6. An area of 174.60 hectares has been proposed for parks and open spaces which includes leisure valleys and green belts along rivers and streams to check soil erosion.

5.2.7. Total area of 431.75 hectares shall be occupied under traffic and transportation use which includes roads, inter state bus terminal, transportnagar and 2 truck stands. An I.S.B.T has been proposed at the entry point of road proposed to link Chandigarh. Similarly, in view of dominance of industrial function a railway complex and an area of 20 hectares has been earmarked for transportnagar in sector-IV on Pinjore-Nalagarh State Highway adjacent to I.S.B.T. Two truck stands in an area of 5 hectares have been proposed on outlets. For road net work following right of ways have been proposed.

TABLE:—12 PROPOSED WIDTH OF ROADS

Sl. No.	Name of road	Proposed right of way (in metres).
1.	Bye pass to Pinjore-Baddi-Nalagarh State Highway	60
2.	Pinjore-Baddi-Nalagarh State Highway	45
3.	Shalaghat-Arki-Kunihar-Barotiwala State Highway	30
4.	Baddi-Sai-Ram Shahar road	30
5.	Main sector peripheral roads	30
6.	Main sector roads	24
7.	Main sectoral roads	24
8.	Main Cluster roads	18&12
9.	Other roads	9,7&5

6.2.8. Area beyond urbanisable limits upto boncdary of Planning Area has been kept as agricultural green belts.

6.3. Proposed sector-wise landuse structure has thus been worked out as under:---

TABLE-13 PROPOSED LANDUSE OR URBANISABLE PLANNING AREA-2001.

Sector	Residential	Commercial	Industrial	Facilities	Govt. office	Parks & open spaces	Traffic & Transportation	Total	Agri-cultural & Green-Belts	Rivers/ Nallahs	Total
1	2	3	4	5	6	7	8	9	10	11	12
I.	29.00	3.00	50.00	3.50	0.50	5.40	15.00	106.40	2.60	—	109.00
II.	25.00	7.10	4.25	4.50	1.25	0.40	13.75	56.25	18.00	15.00	89.25
III.	23.00	10.10	10.00	3.50	—	0.40	19.00	66.00	20.00	4.00	90.00
IV.	29.75	1.10	0.75	4.50	—	0.40	15.25	51.75	23.00	3.25	78.00
V.	1.25	0.75	60.00	3.50	—	0.40	13.10	79.00	—	—	79.00
VI.	26.50	1.10	45.00	4.50	—	4.40	20.00	101.50	12.00	6.50	120.00
VII.	0.50	17.00	1.50	11.88	3.77	78.00	24.00	136.65	08.50	16.10	161.25
VIII.	1.50	—	0.75	—	—	25.40	40.00	67.65	22.10	09.25	99.00
IX.	1.50	1.10	—	25.30	—	15.40	25.00	68.30	20.50	20.20	109.00
X.	10.00	2.80	65.00	3.50	—	5.40	20.00	106.70	1.30	—	108.00
XI.	8.50	—	35.00	3.50	—	0.40	12.00	59.40	2.60	—	62.00
XII.	1.50	1.10	80.00	3.50	—	0.40	14.50	101.00	—	—	101.00
XIII.	1.00	1.10	55.00	3.50	—	0.40	17.00	78.00	1.00	—	79.00
XIV.	21.50	1.10	1.00	3.50	—	0.40	18.00	45.50	43.00	1.50	90.00
XV.	3.25	0.80	40.00	3.50	—	0.40	7.75	55.70	—	1.30	57.00
XVI.	52.00	1.10	6.00	4.50	—	0.40	23.00	87.00	14.00	9.00	110.00
XVII.	0.75	1.10	—	60.00	—	0.40	13.25	75.50	—	0.50	76.00
XVIII.	40.00	1.10	0.75	4.50	—	15.40	17.25	79.00	10.00	5.00	94.00
XIV.	35.00	1.10	1.75	4.50	—	10.40	18.25	71.00	10.00	6.00	87.00
XX.	50.00	1.10	10.75	4.50	—	10.40	10.40	90.00	—	—	90.00
Railway complex.	3.50	1.10	5.50	2.50	—	—	72.40	85.00	17.00	—	102.00
Total ..	365.00	54.75	473.00	162.68	5.52	174.60	43.75	1667.30	225.60	97.60	1990.50
Percentage	21.90	3.30	38.76	9.75	0.33	10.97	28.90	100.00	—	—	—

## CHAPTER 7

## PHASING COSTING AND IMPLEMENTATION

7.1. Out of 2625.50 hectares urbanisable planning area, additional area required for various uses to meet requirements upto year 2001, work out to be 1356.99 hectares as per Table-II. Phasing, costing and implementation of development plan has been contemplated by integrating it as part of Five year Plan and keeping in view development priorities to meet needs of growing population.

## 7.2 Phasing:

7.2.1. Development Plan period has been divided into two Five Yearly Phases i.e. 8th Five Year Plan and 9th Five Year Plan ending 2001. For implementation development plan, services and serviced land are necessarily required to be developed if growth of town is to be regulated according to the development plan. Implementation, therefore, depends upon either allocation of funds from State Plan resources or resources created by Town Development Authority by way of loans, especially for purchase and development of land for making available serviced plots for different use on sale and recouping loan. Development envisaged in one phase, if not implemented, can be carried over to subsequent phase. It has therefore, been proposed that out of 2625.50 hectare of urbanisable area, 1990.50 hectares of urbanisable area is to be acquired in a time bound manner so that time schedule for execution of works of the new city can be adhered to.

7.2.2. Each phase provides for development of land for various uses in different sectors. Break up of additional areas to be developed in different phases is shown as under:—

TABLE:—14 PHASING OF PROPOSALS 1992—2001.

## FIRST PHASE-8TH FIVE YEAR PLAN PERIOD 1992—1996 (Area in hect.)

Sector	Residential	Commercial	Industrial	Facilities & services	Govt. & Semi-Govt. Offices	Parks & Open spaces	Traffic & Transportation	Total
1	2	3	4	5	6	7	8	9
II.	23.50	6.85	—	4.50	—	0.40	10.50	45.75
III.	19.00	10.10	3.00	3.50	—	0.40	16.30	52.30
VII.	—	4.25	—	11.63	3.65	78.00	17.90	115.43
VIII.	—	—	—	—	—	25.40	37.90	63.30
XVIII.	32.50	1.10	—	4.50	—	15.40	15.25	75.75
Total	82.00	22.30	3.00	24.13	3.65	119.60	97.85	352.53

## PHASE-II

## 9TH FIVE YEAR PLAN PERIOD 1996—2001

I.	21.50	—	42.30	3.25	0.50	5.40	13.00	85.95
IV.	26.75	1.10	—	4.50	—	0.40	13.15	45.90
V.	—	—	38.50	3.50	—	0.40	10.30	52.70



1	2	3	4	5	6	7	8	9
VI.	21.25	—	26.75	—	—	4.40	17.50	69.90
IX.	—	0.35	—	25.05	—	15.36	22.90	63.66
X.	3.25	0.05	32.75	3.50	—	5.40	14.75	59.70
XI.	8.00	—	34.00	3.50	—	6.40	10.25	56.15
XII.	—	1.10	80.00	3.50	—	0.40	13.50	98.50
XIII.	—	0.35	21.00	3.50	—	0.40	14.50	39.75
XIV.	21.50	1.10	—	3.50	—	0.40	17.00	43.50
XV.	—	0.30	27.80	3.50	—	0.40	5.25	37.25
XVI.	48.00	0.95	—	4.40	—	0.40	19.90	73.55
XVII.	—	1.10	—	60.00	—	0.40	11.00	72.50
XIX.	33.75	1.10	—	4.50	—	10.40	17.75	67.50
XX.	39.90	0.85	—	4.50	—	10.40	10.05	65.70
Railway Complex	—	0.35	6.00	—	—	—	71.90	72.25
Total ..	223.90	8.60	303.10	137.70	0.50	54.96	282.70	1004.46
G. Total ..	305.90	30.90	306.10	161.83	4.15	174.56	380.55	1356.99

### 6.3. Costing:

6.3.1. Creation of serviced land to meet requirements of growing population is the first requirement. Cost of development of land, provision of services like roads, water-supply, drainage, sewerage, electricity etc. in hilly towns is enormous as compared to towns in plain areas. There is little Government land available near existing town as Government land either is under forests or too steep for economical development. Land prices are very high due to developable land being scarce. Against cost of about Rs. 20,000/- per acre of land around towns in plains, cost of such land around Barotiwala is many times more. Average cost of development and services may work out to about Rs. 400/- per Sqm. of plotted area for Government land besides expenditure on Bus services. It is, therefore, generally not possible for individual developer to create serviced land in hilly towns. Serviced land has, therefore, necessarily to be created by Development Authority. Expenditure on arterial roads upto periphery of urban area, bulk water supply, sewerage disposal, electric transmission lines etc. has essentially to be borne by Government as charge of social services as it is beyond reach of many urban Development Authority of prospective allottees to bear this expenditure. Another need of existing urban area is augmentation of existing infrastructure like roads, water supply, drainage, sewerage, electric supply etc. for which also expenditure is to be borne by the Government as a charge on social services. Phase-wise cost has been worked out on the basis of Rs. 40 lac per hectare cost for serviced land including acquisition and Rs. 30 lac. for Government land.

TABLE:—15 PHASE-WISE COST OF SERVICED LAND (Area in hectare)  
(Rs. in lacs)

Sector	Phase-I			Phase-II			Total	
	Area	Rate	Cost	Area	Rate	Cost	Area	Cost
I.	—	—	—	85.95	40	3440.00	85.96	3440
II.	45.75	40	2300	—	—	—	45.75	2300
III.	52.30	40	2092	—	—	—	52.30	2092
IV.	—	—	—	45.90	40	1836.00	45.90	1836
V.	—	—	—	52.70	40	2120.00	52.70	2120

1	2	3	4	5	6	7	8	9
VI.	—	—	—	69.90	40	2796.00	69.90	2796
VII.	115.43	40	4617	—	—	—	115.43	4617
VIII.	63.30	40	2532	—	—	—	63.30	2532
IX.	—	—	—	63.66	40	2546	63.66	2546
X.	—	—	—	59.70	40	2388	59.70	2388
XI.	—	—	—	56.15	40	2246	56.15	2246
XII.	—	—	—	98.50	40	3940	98.50	3940
XIII.	—	—	—	39.75	40	1680	39.75	1680
XIV.	—	—	—	43.50	40	1740	43.50	1740
XV.	—	—	—	37.25	40	1480	37.25	1480
XVI.	—	—	—	73.55	40	2960	73.55	2960
XVII.	—	—	—	72.50	40	2920	72.50	2920
XVIII.	75.75	40	3030	—	—	—	75.75	3030
XIX.	—	—	—	67.50	40	2700	67.50	2700
XX.	—	—	—	65.70	40	2628	65.70	2628
Railway Complex.	—	—	—	72.25	40	2690	72.25	2890
Total ..	352.53	40.00	14571.00	1004.46	40.00	40310.00	1356.99	54881.00

7.3.2. Out of total 2625.50 hectares of additional proposed urbanisable area, 225 hectares land for plantation along rivers/chose can be developed by Forest Department. Balance 2400.50 hectares land for various urban uses shall have to be developed by the Development Authority.

#### 7.4 Implementation:

7.4.1. Development Authority is to be responsible for creation of serviced land and development of new city. However, overall control in implementation of proposals of development plan in terms of landuse, zoning and sub-division regulations shall vest with Director, Town & Country Planning Department.

7.4.2. To assess achievements of each phase and to orient the Development Plan according to changing needs as well as to cater for unforeseen factors, it is envisaged to review this plan after completion of period of each phase. Development envisaged under a phase, if not implemented, shall be carried over to subsequent phase.

#### 8.0. Zoning and sub-division Regulations.

8.1. Procedure: Land of the urbanisable area is proposed to be acquired, Building permissions, in different sectors shall be given in accordance with detailed schemes likely to be formulated. Application for permission to carry out development of land as envisaged in Section 28 to 30 of the Act shall be submitted on application form prescribed under Rule-12 of Himachal Pradesh Town & Country Planning Rules, 1978 along with copy of Treasury Challan (vide which requisite fee is deposited) and other documents as mentioned Rule-12. Apart from this, following additional documents shall be furnished:—

- (i) Copy of latest layout plan/Shajra plan indicating means of access/road with its width.
- (ii) Extract of latest Jamabandi showing title of ownership of the applicant to plot/land as well as access/ road.
- (iii) Additional number of copies of plan as desired by the competent authority.

- (iv) Copy of the site plan showing distance from the electricity line for development as per Indian Electricity Rules (amended upto date), in case any electricity line is passing over or near by the proposed site for development.
- (v) A certificate from the Municipal Committee/Notified Area Committee/Panchayat/Revenue authority be enclosed in support of taking over the land for development of road/path designating it as public street as per the provision of the Himachal Pradesh Municipal Act, 1968 in case, land is made available by the owner of such land where no public access exists.
- (vi) Applicant shall submit a certificate and get boundary of his land demarcated from revenue authority for inspection of competent authority.
- (vii) Copy of the site plan duly certified by the concerned Executive Engineer (B&R) regarding acquired land boundary of P.W.D. road in case the land abuts any P.W.D. road alongwith permission for laying out of any means of access to a road if considered necessary by the competent authority for according development permission.

## 8.2. General Regulations:

The following general regulations shall apply to all development activity in planning area:—

- (i) No building or other structure shall hereafter be erected, re-erected or materially altered.
- (ii) General land use in the Development Plan has been contemplated for specified uses. However, mixed land use shall not be prohibited unless otherwise a particular land-use is hazardous/contiguous in nature to the predominate use and fulfils the regulations fixed for the same.
- (iii) No yard or plot existing at the time of coming into force of these regulations shall be reduced in dimension of area below the minimum requirements set forth herein. Yards or plots created after the effective date of the requirements of these regulations shall meet at least the minimum requirements established by these regulations. All the plots registered so far shall be treated as plots irrespective of their size subject to the condition that their owners make a provision to leave minimum 3.00 metres path abutting one side on the plot.
- (iv) Areas zoned for public and semi-public open space shall not be built upon in any way or used for purpose other than parks, playgrounds and other recreations. These may, however, with the permission of the Director, Town & Country Planning Department be permitted temporarily for a period not exceeding 30 days, to be used for public entertainment purposes. Structures that may be erected for such entertainment purposes shall be removed at the end of the period and shall in no case be permanently erected.
- (v) The height limitations of these regulations shall not apply to churches, schools hospitals and other public and semi public buildings, provided it is so designed and approved by the Director, Town & Country Planning Department Chimneys, elevators, poles, tanks and other projections not used for human occupancy may extend above the prescribed height limits. Even cornices and windowsills may project into any required yard.
- (vi) In public interest and in the interest of town design or any material consideration the Director may permit higher F.A.R./change of land use on specific ground (s). The decision of the Director shall be final.
- (vii) The existing non-conforming land uses, structure and use of structures shall not be allowed in contravention of provisions of section-26 of Himachal Pradesh Town & Country Planning Act, 1977.

- (viii) Natural Nullahs which pass through land involving sub-division shall be developed and maintained according to discharge of water.
- (ix) If a plot is developed by cutting land, owner shall protect hill-cut by retaining/breast wall/diaphragm wall in the structure so that cutting may not harm adjoining plots/properties.
- (x) Development proposal for a part of land or Khasra number shall not be considered. proposal for complete land holding shall be submitted even if planning permission is required for part of the land.
- (xi) No wall, fence and hedge along any yard shall exceed 2 metres in height.
- (xii) On a corner plot in any zone, nothing shall be erected, placed, planted or allowed to grow in such a manner so as to materially impede vision.
- (xiii) No planning permission for development shall be granted unless the road/path on which land/plot abuts is properly demarcated and developed.

### 8.3. Sub-Division Regulations:

8.3.1. Sub-Division of land shall be permitted in accordance with natural profile/topography (shown on a contour map), along with drainage of the land, access road, orientation, wind direction & other environmental requirements and according to prescribed land use in the Development Plan. Natural flora shall be preserved. Unless site conditions prohibit, plots shall be permitted at right angle to the road with proper shape and dimension, so that, optimum use of land is ensured.

8.3.2. Development/Sub-Division of land shall not be permitted in area where basic services like paved roads, drainage, water supply, sewerage, disposal, electrical supply line, street lighting etc. do not exist. The developer shall apply to develop the requisite services/infrastructure and letter of intent for the same may be given to him/her/them. Final permission for sub-division of land shall be given as and when services are developed. Roads and services are to be provided in a particular sub-division of land in consonance with the adjoining infrastructure/proposals of the development plan. Unless site conditions prohibit, no sub-division shall be allowed with direct access from the National Highway.

8.3.3. One side of every residential plot shall abut minimum 7m wide Vehicular road. In extreme cases, because of difficult terrain, 5 metres wide path can also be permitted. In case of plot/land abutting existing road/path, width of same shall be increased to meet with the requirement of these regulations by getting additional strip of land surrendered from the land owners on either sides of such road/path equitably or in accordance with topography of land and feasibility. Right of ownership/use of such land which is earmarked for path/road shall be surrendered/ transferred to the development authority/local body/Panchayat/ revenue authority by owner of the plot without any compensation.

8.3.4. If number of plots abutting any road is more than 10 width of road shall not be less than 7 metre and adequate provision of parking for vehicles shall be made.

8.3.5. Average slope gradient for regional roads shall have to be 1:20. However, local roads in town may be allowed with slope gradient upto 1:10 additional width of carriage way shall be provided on curves for ensuring smooth flow of traffic.

8.3.6. Minimum area of a plot for a detached house shall not be less than 150 sqm. In case of plots meant for semi-detached and row housing minimum size shall be 120 sqm. and 90 sqm. respectively: provided that front, rear and side set back regulations are fulfilled.

8.3.7. Semi-detached house construction shall be allowed on plots upto 250 sqm. and row housing on plots upto 120 sqm. subject to maximum number of such plots do not exceed 8 in

row after which gap of seven metres shall be left. Although minimum size of plot for construction in a row, with two common walls, have been kept as 90 sqm. yet in exceptional circumstances considering economic/site conditions, minimum size of plot in a row, with two common walls, upto 60 sqm. for houses may be allowed, provided that front and rear set-back regulations are fulfilled, so as, to provide smallest possible residential construction in a planned manner for benefit of economically weaker section of the society.

#### 8.4. Zoning Regulations:

##### 8.4.1. Residential use:

8.4.1.1. Minimum size and requirement of plots: The construction of building for residential use shall not be permitted on any plot which has an area of less than 90 sq mt. Minimum width of plot for row, semi-detached and detached types houses shall be 5 mt. and 10 mt. respectively. Ratio of depth to width of the plot shall normally range between 1½ and 3. For social housing schemes sponsored by the public agencies for economically weaker section and low income groups the minimum size of plot shall be 60 sqmt.

8.4.1.2. Maximum permissible covered area: Maximum covered area in residential plots shall be as under :—

No.	Area of the plot	Maximum permissible covered area
(i)	Less than 200 m <sup>2</sup>	60% of the plot area.
(ii)	201 m <sup>2</sup> to 500 m <sup>2</sup>	50% of the plot area or 135 sqm. whichever is more.
(iii)	501 m <sup>2</sup> and above.	40 % of the plot area or 250m <sup>2</sup> whichever is more.

8.4.1.3. **Layout of Plots.**—The layout of plots in residential area shall be based on following criteria:—

Sl.No.	Plot Size	Development Scheme/Type of Housing.
1.	Upto 120 Sqmt.	Row housing.
2.	121 m <sup>2</sup> and above.	Semi-detached building.
3.	150 m <sup>2</sup> & above.	Detached building.

8.4.1.4. **Area and height limitation:**—Floor Area Ratio F.A.R. shall be as given in the table.

TABLE:—PLOT SIZE COVERAGE, SET BACKS AND FAR FOR RESIDENTIAL PLOTS.

Sr. No.	Plot size in sqmt.	Type of construction.	Minimum set back in sqmt.			
			Front	Side	Rear	F.A.R.
1.	upto 120	Row	3	—	2	1.50
2.	121 to 250	Semi detached	3	3	2	1.50
3.	150 to 250	Detached	3	2	2	1.50
4.	251 to 500	—	3	3	2	1.50
5.	Above 500	—	5	4	2	1.00

Note:—(a) Maximum permissible coverage shall be subject to fulfilment of prescribed set backs.

- (b) In case of corner plots width of plot and side set back shall be increased by 2.00 mt. for providing proper sight distance on the curve.
- (c) For plots having side set-back of three metres and more, construction of garage upto 5 mt. dept in ground floor shall be permitted touching rear boundry of the plot provided total coverage remains within the maximum permissible limit and no opening is left on the sides of the adjoining plots.
- (d) Minimum projection of 1 mt. for balcony (complete open on at least two sides) shall be permitted where a minimum front set back of 3 mtr. is left with restriction in length upto 50% of frontage of the building.
- (e) Roof slab/chajja projection over door/window openings shall be limited upto 45 cm. over set back on all sides.
- (f) No construction shall be permitted on a piece of land left with buildable width less than 5 mtrs. after maintaining set backs with reference to the size of plot when the same lies in between the two roads.
- (g) A front set back of 7.5 mtr. shall apply on all National Highways, 5 mtr. on State Highways and other arterial roads as may be specified in the development plan.
- (h) Minimum and maximum floor height for residential buidlings shall be 2.70 mt. and 3.50 mtrs. respectively.
- (i) The area of mummy to the extent permissible for houses on individual plots will not be reckoned in the floor Area Ratio.
- (j) No projection and opening shall be provided on the sides of common wall in case of row and semi-detached houses. However, the owners of plots of either sides shall have an option to construct a common wall.

#### 8.4.2. Commercial Use:

8.4.2.1. **Minimum size and Requirements of plots.**—The minimum size of plot for shopping booth shall be 20 sqm. including covered corridor (arcade)/pavement in front with minimum plot width of 2.50 mt. The ratio of depth to width shall not be more than four.

#### 8.4.2.2. Organised shopping centre:

The area which has been designated for commercial use in the Development Plan and has an area more than 500 sqm. shall be treated as organised shopping centre.

#### 8.4.2.3. Coverage:

The maximum coverage of the commercial areas shall not be more than 50%. The remaining area of shopping centre shall be used for parking, plots/movement space and recreation. The layout plan indicating location of parking area, movement area and recreation area shall depend on the size of the commercial centre and its location and design which shall be approved. Maximum permissible built up area for individual plot shall not be more than 80% at the ground floor.

8.4.2.4. **F.A.R.**—Maximum permissible F.A.R. for these shopping centres shall be 2.

#### 8.4.2.5. Cinema:

The plot area required for cinema is directly related with its capacity, adequate vehicular parking within premises, incidental shops and open spaces around the building for ventilation and safety measures against the fire hazards. The area required for

cinema plot shall be at the rate of 3.7 sqm. per seat capacity. The permissible coverage of the total area shall be 50% of the plot.

Front set back will depend upon the location of cinema plot and shall be between 8 to 10 mtrs. The side and rear set back shall be 5 mtrs. Adequate parking space for cars scooters and cycles shall be provided.

8.4.2.6. Hotel:—A Maximum permissible coverage of the plot shall be as under:—

Sr.No.	Size of plot (Sqm)	Permissible cover age including 5% for covered parking at ground floor.	
			F.A.R.
1.	On plots 500 to 750sqm.	40%	1.6
2.	On plots 751 to 1000 sqm.	35%	1.4
3.	On plots above 1000 sqm.	30%	1.2

The front set back will depend on the depth of plot as well as on road abutting there of. It shall be minimum 8 mtrs for the plots upto 1000 sqm. areas and 12 mtrs. for plots above 1000 sqm. Set back on other sides shall be minimum 3 mtrs. upto 1000 sqm. plots and 5.00 mtrs. for plots above 1000 sqm. Minimum street parking space shall be provided within the plot at the rate of one parking space per two beds. Each parking space shall not be less than 20 sqm. Upto 50% of the open area shall be utilised for open parking on roads and the rest may be landscaped.

#### 8.4.3. Industrial Use:

##### 8.4.3.1. Minimum size and requirements of plots:

Minimum size of plot shall be 500 sqm. In case of service/light industries the minimum plot shall not be less than 250 sqm. with a minimum width of 10 mtrs., Ceiling height shall not be less than 3.6 mt., Layout and design of Industrial area as earmarked in the Development Plan shall be as per norms of the industrial use and shall be approved by the Director. The permissible coverage and set backs in the industrial area shall be as under:—

Sl. No.	Type of Industry	Size of plot (Sqm.)	Cover-age	Set backs (Mtr.)			F.A.R.
				F.	S.	R.	
1.	Small Scale/Service Industry.	upto 1000	66%	6	5	5	1.00
2.	Medium	1000 to 5000	60%	10	5	5	0.60
3.	Heavy	Above 5000	55%	20	5	5	0.30

#### 8.4.4. Facilities, Services and Government and Semi-Government Offices:—

In case of plots for assembly occupancies like cinema, hotels and public buildings like college, higher/high schools, hospitals etc. In existing built up areas, the minimum width of plot shall be 30 mtrs. and it shall have front on a street of width not less than 5 mtrs. In case of newly developed areas, outside existing built-up areas, the width of plot shall



not be less than 50 mtrs. and shall have front on a street of width not less than 7 mtrs. Provided set backs and coverage of plots are such so as, not to create nuisance to the residential area with minimum 10 mtrs. setbacks from all sides of the dwelling units. Layout plan to be prepared on the following norms:—

Sl.No.	Description	Coverage	F.R.A.
1.	Educational Buildings	30 to 40%	1.00
2.	Police Station/Fire Station.	40%	1.00
3.	Medical	40%	1.50
4.	Community Hall/Library/Religious Building.	40%	1.00
5.	Government & Semi-Government Offices.	50%	2.00

*Note.*—Upto 50% of the open area shall be utilised for open parking and roads and the rest may be landscaped.

*Note.*—2. 5% additional coverage shall be allowed for garages and other vehicle sheds.

#### 8.5. Green Belt/Agriculture Zone:

Only need based farm houses and other incidental buildings pertaining to agriculture use upto 100 sqm. plinth area shall be permitted in this zone on an simple application. Such buildings shall be built as per conventional design and shall not exceed 2 storeys including an attic/barsati. Regulations for paved road, other services etc. as for residential use shall not be applicable in case of farm house.